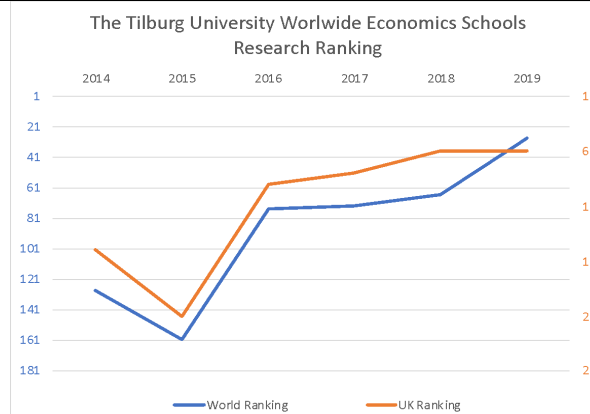


Institution: Queen Mary University of London
Unit of Assessment: 16 Economics and Econometrics
<p>1. Unit context and structure, research and impact strategy</p> <p>1.1 The context, structure and vision behind our research</p> <p>Research in economics and econometrics at Queen Mary University London (QMUL) is hosted in the School of Economics and Finance (SEF), one of the few Economics Schools in the UK to encompass the fundamentally interrelated discipline of finance. One of eight schools comprising the Faculty of Humanities and Social Sciences, the School is both large and intellectually diverse, with 44 permanent and 2 Marie-Curie postdoctoral members of staff (44.35 FTE at census date) conducting research across the full range of subfields of economics and finance. With 58 PhD students, investment in the growth and training of the School's vibrant postgraduate research student community is also central to the School's success, in recognition of the vital contribution of PGR students to the School's research culture and of their potential for extending the reach of the School's research.</p> <p>SEF's dynamic research culture across economics and finance is shaped by its five research groups, which play an important part in seminar organisation, doctoral training and staff recruitment, and to which our PhD students are also affiliated: Applied Microeconomics (12 staff members), Econometrics (6), Finance (6), Macroeconomics (11), and Microeconomic Theory (11). This structure reflects SEF's continued commitment to producing world-class research in all major sub-fields of economics, econometrics and finance, whilst also promoting their cross-fertilization.</p> <p>Achievements. In 2014, SEF had set out four strategic areas to focus on over the assessment period 2014-2021, which were: growth, doctoral training, grant income and research facilitation.</p> <ol style="list-style-type: none"> 1. Growth. Faculty are central to the School's vision of bringing research across economics, econometrics <i>and</i> finance into dialogue on urgent social and economic challenges. To achieve this vision, the School has grown its faculty in depth, strength, quality and visibility. The School's recruitment strategy targets world-class researchers from the international job market, especially ECRs and rising stars that have the potential to be research leaders in the future [see Section 2]. The School has grown its research faculty from 32.45 to 44 (44.35 full-time equivalent, including two Marie-Curie postdoctoral members) during the assessment period, with 68% of new academics appointed within ten years of obtaining their PhD, 92% of new academics having international academic experience, and 32% of new academics female. The growth in faculty has strengthened the School and added depth across research areas. (During the Covid-19 pandemic, the School has maintained its investment in faculty with six new openings having been approved.) The growth in SEF's quality and visibility is corroborated by its performance in international research rankings, its record of publication in highly esteemed journals, and its ability to secure grant funding. The Tilburg University Economics Schools Research Ranking, which is based on publication quality, places the School 8th in the UK for the period 2014–19 (compared to 23rd for the period 2009–13), based on an annual improvement from 16th to 6th over the period 2014-19 (see Figure below). The Shanghai World Ranking confirms the upward trajectory of the School: the School was ranked in the 151-200 bracket in 2017 and 2018, in the 101-150 bracket in 2019 and in the 76-100 bracket in 2020.



The School's research outputs submitted to REF 2021 include 26 publications in the top general-interest economics journals (*American Economic Review*, *Econometrica*, *Journal of Political Economy*, *Review of Economic Studies* and *Quarterly Journal of Economics*), 10 publications in premier finance journals (*Journal of Finance*, *Journal of Financial Economics*, and *Review of Financial Studies*), and many more in other high-quality journals including the *Journal of Econometrics* (9) and *The Economic Journal* (13).

2. **Doctoral training.** The School's rise to prominence in recent years has been significantly facilitated by carefully selecting and nurturing its research student body. PhD awards have increased from 15 in REF2014 to 43 in REF2021 [REF4a]. Building a reputation for the excellence of the School's postgraduate research programme and students is also central to attracting the best researchers to SEF and developing research leaders for the future. The School continues to invest in its PGR students by providing generous studentships for its entire PGR cohort, from MRes through to PhD. In 2014, SEF launched its new MRes course, designed as the main entry point to the PhD programme. In line with top US and UK graduate programmes, the new MRes programme provides students with a grounding in advanced topics. It has been very successful in attracting applicants from top UK and EU universities and in laying a foundation for the success of our job market candidates, through whom SEF makes its contribution to the future generation of researchers. For instance, 2020 placements include Bocconi University, the University of Southampton, the University of Edinburgh, the University of St Andrews, and the Bank of Japan. From the academic year 2021-2022, the MRes programme will be enhanced further to include an extended two-year programme of doctoral training. The School has also invested significantly in developing the wider economics research student body. In 2018, the School launched an annual two-day QMUL Economics and Finance Workshop for PhD & Post-doctoral students targeted at pre-job market students with the objective of fostering cross-institutional collaboration, networking, and developing future research leaders.
3. **External research funding.** The total value of external research funding awarded to SEF during the assessment period is 15 times higher than during the previous assessment period [see Section 3]. This includes an increase in colleagues applying for and securing smaller grants, demonstrating faculty-wide engagement in our growing culture of attracting external funding to the School. Going forward, the School aims to continue this upward trajectory in research grant applications, with a particular focus on encouraging collaborative projects led jointly by two or more members of staff and across research groups.
4. **Research facilitation.** In 2017 the School moved to QMUL's newly constructed Graduate Centre, whose seminar rooms and shared workspaces offer Faculty, doctoral researchers and visitors plenty of opportunity for conversation and collaboration. This £25 million investment in infrastructure complements and reinforces the sustained investment in

people made throughout the assessment period. Each of our five research groups runs a weekly, fully catered, lunchtime seminar, which all see staff from across the School, including graduate students, come together to hear and discuss research presented by internal and external speakers. Regular conferences hosted by the School provide further opportunities for the exchange of ideas.

The School's Aspirations. The School's distinctive structure of combining the complementary fields of economics and finance reflects its central vision of bringing research across economics, econometrics *and* finance into dialogue and of facilitating boundary-crossing approaches to some of the most pressing challenges facing societies and economies today. This model has certain clear advantages, on which we elaborate below.

It is a widely acknowledged lesson of the global financial crisis of 2007–08 that connections between capital markets and the rest of the economy are deeper and more important than had previously been recognized. Tools from economic theory and econometrics are clearly needed to understand and to effectively regulate financial markets (e.g., to address information asymmetries or to estimate correlations between different classes of assets). Moreover, it is now apparent that even esoteric financial instruments such as mortgage-backed securities and credit default swaps can have dramatic and persistent effects on labour markets, public investment, and other aspects of the real economy. Finance, as a discipline, needs to make more use of mainstream models of imperfect market mechanisms arising from issues of sparseness or asymmetries of information, failures of prices to aggregate information, behavioural biases, and bounded rationality that have been developed in recent years in economics. More sustained opportunities are necessary for cross-fertilization of ideas that advances in empirical practice brought forth in the “revolution in applied micro” of recent years, which inspired research in corporate finance, corporate governance and financial markets. With a very strong group in applied microeconomics, SEF is well-positioned to foster the dialogue between applied finance and applied economics. At the same time, economics as a discipline, and macroeconomics in particular, needs to bring financial markets, and financial institutions more generally, into its models and world view in substantive ways. From this point of view, a disciplinary division between economics and finance appears artificial, and an administrative division between the two risks creating obstacles to effective research. However, it has been the growing norm, across the world, for Finance units to be situated in Business Schools and develop and work separated from Economics departments. A key inspiration for SEF's structure is to bridge this artificial disciplinary division between economics and finance and thus create a distinctive research space that produces research that addresses social and economic challenges.

1.2 Broader culture and objectives of our research

In the aftermath of the Great Recession, QMUL made a strategic decision to transform what was then the Department of Economics into a new School of Economics and Finance, which was formally established in September 2010. With its historical strength in financial econometrics, its location between London's two financial centres, and its links to the investment industry through highly successful professional Masters programmes, QMUL was well placed to implement this transformation and to expand the scope of its research activities in both economics and finance. Following the rebranding, the School modernised and expanded its research-oriented postgraduate degrees, launching the MRes Economics and MRes Finance programmes in September 2014, and adding the PhD Finance in September 2015 as a counterpart to the long-established PhD Economics. QMUL also committed to constructing a new physical home for the School, and SEF now occupies three floors in the Graduate Centre, which opened in January

2017. All academic staff, administrative staff, and doctoral student offices are located in this space, as are the School's dedicated seminar room, meeting rooms, and Behavioural Lab.

The School's aim of cultivating a constant dialogue between economics, econometrics and finance is reflected in its departmental culture. Members of different research groups attend the same seminars, exchange ideas every day at coffee breaks, lunches, and other social events, co-advise doctoral students, and participate in the annual off-site School-wide "Rentrée" research conference. The continued development within and across the five research groups enhances the vitality and sustainability of the School's research environment. More concretely, the interdisciplinary nature of SEF is reflected both in its recent recruitment and in the work of longer-serving staff. To give a few examples:

- Professor Carriero conducts research on forecasting and structural modelling with large datasets, bridging the Macroeconomics and Econometrics groups. He has also worked on using financial data to quantify Knightian uncertainty, which is the focus of Professor Mukerji's research on decision models in the Microeconomic Theory group.
- Professor Sturgess (appointed 2017) is an expert on corporate finance who has investigated the role of information in decision making by financial practitioners such as bank analysts and loan officers. Information economics is likewise a primary research interest of Professor Renou in the Microeconomic Theory group, and the empirical methods used by Professor Sturgess also create a bridge between the Finance and Applied Microeconomics groups.
- Dr Zachariadis (appointed 2016) studies auction theory and its applications to financial markets, where the buying and selling of an asset can be usefully modelled as a double auction. His research in this area links the Finance group to the Microeconomic Theory group, and in particular to Professor Atakan's work in auction theory.
- Dr. Roman Sustek's pathbreaking research (in part, joint with Finn Kydland) on mortgage finance and its implications for the macroeconomy and macroeconomic policy is an example of work at the interface of economics and finance.

The dissemination of knowledge to users of research outside of academia is a central component of the School's research strategy, aligning with wider university strategy [see REF5a, Section 2]. SEF achieves this in a variety of ways, including (i) addressing research questions directly relevant to practitioners such as development agencies, school administrators, or central banks; (ii) translating research into forms accessible to the general public; and (iii) providing businesses, non-profits, or government agencies with evidence-based advice. As examples of these three forms of dissemination:

- Dr Fasani's work on the relationship between migration and crime has important policy implications at the national and international levels.
- Professor Petrongolo interprets academic research on labour markets for the public by engaging in a range of media activities, with expository contributions to *El País*, the *Financial Times*, *The Guardian*, *Le Monde*, and *VoxEU*.
- Professor Breedon serves on the Jersey Fiscal Policy Panel, advising the Treasury and Resources Minister and States members on taxation and spending, and the Scottish Fiscal Commission, providing independent economic and fiscal forecasts to accompany the Scottish Government's budget.

In summary, SEF has created a thriving research environment in which economics, econometrics, and finance interact routinely and productively, and promotion of this interdisciplinary culture is an important element of the School's strategy. Economics and finance are complementary

components of the unified research environment at the School that encompasses research seminars and workshops, PhD students, and facilitates constant dialogue on issues facing societies and economies. In other words, SEF is genuinely the School of Economics *and* Finance.

1.3 Facilitation of research

Within the School, the responsibility for developing, implementing and reviewing the School's research strategy lies with the Research Committee. The Research Committee is composed of the Head of School (ex officio), a Research Director, at least one representative of each research group, usually a more established academic, an early career researcher representative, and the Research Manager. The Research Committee meets regularly to review progress and discuss actions to be taken towards achieving the School's objectives. Members of the Research Committee liaise with each research group, oversee the organization of the seminar series, help with the drafting of grant proposals, advise on publication strategy, and more broadly serve as points of contact for any issue related to research. In addition, a member of the committee leads on promoting impact generation within the School. Finally, the Research Committee is responsible for the REF submission.

To help researchers within the School produce world-leading research, the School has taken a number of innovative steps:

Seminars: Since 2017-2018, the School has moved from a general-audience to a specialized external seminar series in each of applied economics, econometrics, macroeconomics, finance, and microeconomic theory. Seminars are scheduled on separate days to facilitate wider participation, which reflects the School's desire to facilitate interaction between the numerous fields of economics and finance. Speakers spend the entire day at the School, enabling individual researchers to meet one-to-one with the speaker, present their own work and receive feedback. PhD students are an integral part of the seminar series and meet speakers over lunch, giving them an opportunity to present and receive feedback on their own research and to build a network. The School also runs an internal seminar series in each research area, providing ample opportunities for faculty and research students to receive feedback on preliminary work and an annual School-wide "Rentrée" research conference that promotes interdisciplinary research.

Conferences: In addition to the external and internal seminar series, the School funds and organizes annual workshops in macroeconomics, applied economics and economic theory, and a PhD workshop [see Section 4]. The objective is to foster the reputation of the School and the exposure of its academics to world leaders in economics and finance.

Research Allowances: The School provides financial support for research through a competitive research allowance and continued support for external grant applications. Each individual academic receives a generous research allowance to visit or invite co-authors, to attend conferences, and to acquire equipment and databases [see Section 2].

Research Funding: As part of its commitment to continue to build a research culture that integrates research grants as enablers of pathbreaking research, the School has established a combination of policies and support to facilitate grant capture. The School has a Research Manager who is embedded into the research culture of the School, which reduces the entry barriers to research income applications and success [See Section 3]. At university level, the School benefits from the services of the Joint Research Management Office and also the service of the Research Ethics Committee, which reviews all proposals for experiments [see REF5a,

Section 2].

Research Time and Space: The School acknowledges that developing world-leading research requires not simply financial support but also focused research time without distraction. The School addresses this in two ways. First, the teaching load is kept relatively light, typically consisting of two courses a year. Second, the School strongly encourages its members to make use of the generous sabbatical scheme, which the University offers to visit other world-class institutions. Further, the newly purpose-built Graduate Centre provides an aspirational environment for individual and collaborative research.

1.4 Impact Strategy

To achieve the aspiration of applying research across economics and finance to the betterment of society and the economy, the School is increasingly ambitious to create bridges between academic research and end users, to produce impactful research, and to use academic research to advise policy makers. The School's impact strategy aims to integrate impact into the research process and focusses on three phases: identification, nurture, and delivery of impact.

SEF is pro-active in encouraging and incentivizing individual researchers and the School collectively to identify impactful research at early stages. To achieve this, a range of new measures have been introduced:

- Appointed an Impact Lead.
- Included research impact in appraisals, mentoring and promotion processes.
- Established an annual impact fund of £10,000 to support impact development.
- Created the 'Impact Champion' £500 prize to recognise the achievements of individual researchers in generating impact.
- Included consideration of candidates' potential to generate research impact in the hiring process.
- Launched (in November 2019) an impact workshop designed to inform and engage SEF researchers in impact-making activities. Sessions were delivered by QMUL's Research Impact Manager [REF5a, see Section 4], the School's Impact Lead and the Head of School.
- Aligned strategies on research income and impact to identify grants open for projects with potential impact.
- Offered academics the opportunity to work up to one day a week on outreach activities and consulting.

Research identified with high impact potential is nurtured and supported by the School and the University through to delivery of impact. School members are provided with time and funding flexibility to engage in outreach activities with non-academic users to develop collaborations, with increasing support from the Impact Lead, Research Manager, the Faculty Impact Team, and QMUL's Research Impact Manager. Engagement and dissemination of research is key to nurturing and delivering impact. SEF faculty are encouraged to disseminate their research widely and to diverse audiences in order to inform the public debate on a number of economic and social issues. To facilitate dissemination, the School has both established itself as a platform for public debate and uses QM Public Relations to reach the general public

The School's commitment to engagement as a path to impact is reflected in sustained collaborations between research staff and both public and private bodies in the UK and abroad, with lasting effects on the decisions and practices of these organisations. Representative

examples of how the research-led impact strategy of the School is achieving its goals include the submitted impact case studies [REF3] as well as the following examples:

- Battistin's work on the measurement of consumption has informed the World Bank's methodology for the measurement of consumption inequality, with applications in Iraq.
- Fasani's work on refugee migrants has provided intelligence to the World Bank on the impact of operations at the external European border and of search-and-rescue operations in the Mediterranean Sea.

Potential impact is also an important consideration in hiring decisions and mentoring of ECRs. For example, Dr Franklin's work on how demographic shifts have implications for inequality in Ethiopia, and in particular how government welfare and labour market policies can be designed to integrate growing youth populations into the labour force; and Dr Balasubramaniam's work, funded by a Bill and Melinda Gates Foundation grant, on increasing consumer financial literacy and access to financial markets in India both have potential for impact.

Cultivating a culture of research impact generation within the School will remain a key strategic goal for SEF over the next REF assessment period. As part of its plans to become a leader in research impact beyond academia, SEF plans to launch new research centres that act as incubators for impactful research and springboards for engagement with policy makers and end-users. Working towards this aim, in 2020 SEF started to collaborate with QMUL's School of Electronic Engineering and Computer Science and major media partners on a high-value, interdisciplinary and impact-oriented research centre proposal. The School continues to build relationships with partner organisations [see Section 4] with a view to co-developing infrastructure for research impact generation. This initiative, and others planned for the School, such as the **Centre for Impact and Public Engagement**, are intended to serve as platforms for creating and showcasing the School's diverse research impact activities.

2. People

The recruitment and retention of academic staff of the highest calibre at all levels is an essential component of the University's research strategy [REF5a, Section 2]. The School fully subscribes to that aspiration with a people strategy that focuses on recruitment and retention to attract and develop world-class academics.

The composition of SEF's five research groups at the census date was:

Applied Economics (12): Axbard, Cornaglia, F. Fasani, Franklin, Gerard, Lim, Manacorda, Petrongolo, Raute, Tesei, Thoenig, Warrinier.

Econometrics (6): Bianchi, Carriero, Giraitis, Guerre, Lazarova, Mumtaz.

Finance (6): Balasubramaniam, Breedon, Groen-Xu, Skiadopoulos, Sturgess, Zachariadis.

Macroeconomics (11): Bonfiglioli, S. Fasani, Fella, Gancia, Lazco, Lee, Mateos-Planas, Nikolowa, Senga, Sustek, Zheng.

Microeconomics (11): Atakan, Ivanov, Llorente-Saguer, Mariotti, Mukerji, Prummer, Ramos, Renou, Tyson, Veneziani, Vriend.

Recruitment Strategy. The School's recruitment strategy targets academics with the strongest track records and potential to develop even further once appointed. In particular, the School focuses on identifying ECRs and rising stars that have the potential to be research leaders in the future. SEF recruits across all research areas to achieve depth in quality, but also prioritizes researchers in fields that create bridges between the School's research groups (and thus, foster interactions), to strengthen the groups and to develop new research clusters. Recruitment is not driven by short-term teaching needs. To achieve this strategy, the School recruits internationally, competing with top European and North American schools.

Recruitment Successes and Staff Profile. In REF 2014, the School set itself the objective of continuing to attract and retain academics of the highest calibre. Over the assessment period, the School has grown in strength, depth, and quality through an increase in faculty from 32.45 to 44.35 (full-time equivalent) academics (including two Marie-Curie fellows). Recruitment achievements include:

- 25 new faculty members have been appointed at all ranks (8 lecturers, 5 senior lecturers, 3 readers and 9 professors).
- 68% of new academics are ECRs or rising stars who were appointed within ten years of obtaining their PhD.
- 32% of new academics are women. For reference, an American Economic Association study found that only 23.5% of tenured and tenured-track faculty staff in economics are women (see CSWEP: Survey and Annual Report, 2016). A similar study of European economists reported a similar proportion (see Giraneza Birekaho, March 2018, Bruegel Institute). The School's recruitment strategy has embedded EDI initiatives to increase this proportion further in the future.
- 92% of new academics have international academic experience, either studying for their PhD or holding an academic post outside the UK.
- A third of appointments have been in finance, reflecting SEF's strategy to develop the interdisciplinary dialogue between economics and finance.

The staff profile today reflects a vibrant School with strength and depth in quality that spans the five research areas and strikes a balance between ECRs, rising stars, and senior faculty who contribute to and lead on School research strategy. The profile reflects the transformation of the School into a research-intensive, world-class and striving school of Economics and Finance. This transformation has been achieved through the recruitment strategy described above and a combination of natural and supported attrition of 13.5 (full time equivalent) faculty, especially more senior faculty.

To sum up, the School has a diverse profile, employing staff from more than fifteen countries and three continents. In recent years the School has continued to improve its gender balance and has achieved near gender parity among non-professorial staff. The School expects most of the recently hired female readers to be promoted to professorship within the next few years, hence correcting the gender imbalance at the professorial level.

Recruitment Processes. The School has robust processes in place to recruit at all levels. All processes are coordinated and overseen by the chair of the hiring committees and the Head of School.

To recruit ECRs, the School attends the meeting of the Allied Social Science Association, held in the US every January of each year, and the European Job Market for Economists where we have

the opportunity to pre-interview candidates before inviting them for a visit. The School is therefore present at all major recruitment meetings. A Junior Recruitment Committee, comprised of junior and senior academics and representative of the School's research expertise, coordinates the junior hiring. The Committee screens (and often scouts for) applications, solicits views from colleagues, and shortlists candidates for interviews and seminars. The School invites candidates for a visit during January and February each year. Candidates present a research seminar attended by colleagues from all areas and meet individually with several School members.

Senior recruitment does not follow a pre-set timing and professors in the School are regularly looking for new hires. Hiring strategies are decided in collegial meetings of all professors. After due discussion and mutual expression of interests, senior candidates are invited to visit, present their research and meet with colleagues. For either junior or senior candidates, offers are made after successful candidates have interviewed with our Vice Principal (VP) and his representatives.

In addition, the School participates in the Faculty-wide recruitment of exceptional academics as members of the Institute for Humanities and Social Sciences (IHSS), a research institute established in 2018 as an ideas-generating hub and inter-disciplinary research platforms across humanities and social sciences [see REF5a, Section 2]. In 2019-2020, two ECRs (Dr Gerard; Dr Franklin) were appointed jointly by the Institute and the School as part of the 'Strategic Lecturers' ECR investment. This joint appointment provides them with protected time for research and opportunities for interdisciplinary endeavours.

Retention, Support of Staff and Staff Development. The School acknowledges the importance of research support and time for achieving academic excellence and has taken steps to support researchers.

Research, teaching, and administrative duties are balanced through careful monitoring of workloads by the Head of School. The standard teaching load is two courses per academic year (often accommodated within one semester) and can be reduced through buyout from external funding and discounts for significant administrative assignments. All newly appointed ECRs get a teaching discount in their first few years of appointment.

Each academic has an annual research allowance of £4,500 with an additional £2,500 available to hire research assistants. There is a streamlined process to competitively allocate additional funds to cover further research needs such as buying datasets, hiring research assistants or visiting co-authors.

In addition, numerous opportunities for staff development are provided by Researcher Development, which offers training in research skills and the preparation of grant applications. QMUL is a signatory to the Concordat to Support the Career Development of Researchers and encourages researchers to proactively engage in their own professional and career development [see REF5a, Section 3]. The School has embedded the Concordat's principles into its own researcher support practices.

QMUL has a generous sabbatical leave policy (six months of leave can be applied for every six semesters) which facilitates periods of concentrated research and academic visits to other institutions. In recent years, members of the School have visited prestigious institutions such as Duke University, Yale University, MIT, Northwestern University, Paris School of Economics and Bocconi University.

Early Career Researchers. The aim of the School is to nurture, mentor and support ECRs to help them develop into leaders in their fields of research.

ECRs are mentored by a senior colleague in their field, who discusses with them their work, achievements, research trajectory and prospects of promotion at the end of each year. Promotion to the ranks of reader and professor is based on excellence in research and leadership in the field of specialization, as demonstrated by high-quality publications and evidence of professional esteem. Impactful research also plays an important role in promotion (along with teaching and administration). Besides promotion, the University rewards academics with exceptional track records with yearly bonuses and spine increments. Examples of recent promotion include Dr Tesei, Dr Tyson, Dr Zheng, among others.

The School pays particular attention to female ECRs. Informed by the work of Erin Hengel, who documents the hurdles and perception biases young female economists faced during the publication process (“Publishing while female,” University of Liverpool, December 2018), the School matches female academics with senior academics who have substantial editorial experience. Academics with actual editorial experience are able to advise on how best to write a paper to overcome these hurdles and biases. Examples of success include the publication of Dr Raute’s work in the *Journal of Political Economy* and of Dr Prummer’s work in the *Journal of Economic Theory* and *Journal of Public Economics*.

Early career researchers receive a research allowance top-up of £3,000 in the first three years of appointment and there is a streamlined process to competitively allocate additional funds to cover further research needs.

In addition, ECRs are never allocated major institution-building and management roles; these tasks are allocated to senior staff. Administrative tasks are kept to a minimum during the initial years of a junior appointment. A typical role for ECRs is organizing the seminar series, which helps early career researchers to build their network, increase visibility of their work and receive feedback on their current projects. To build up their leadership skills, early career researchers are given the opportunity to serve as junior representatives in the School’s committees. This also ensures that the voices of junior members of the School are heard. Collegiality is important to the School.

The School strategy on retention and staff support and development has achieved significant successes. For instance, Dr Tesei was appointed in 2012, directly after completing his PhD. Since then, under the guidance of the Applied Microeconomics group, he has become a world-class researcher with publications in the most prestigious journals in the profession (*American Economic Review* and *Econometrica*), makes frequent appearances in the media (*Financial Times*, *The Guardian*, *El País*, *The New York Times*, among others) and is a co-investigator on a large grant. The School is working hard to make sure that the most recently hired academics follow a similar trajectory. Preliminary evidence suggests that we are achieving our goals: Dr Raute, Dr Franklin, Dr Gerard, Dr Ramos and Dr Balasubramaniam have already published in top journals, and nearly all others have papers at the revise and resubmit stage of top journals.

Equality and Diversity. QMUL is committed to equality and diversity, has in place a firm equal opportunities policy, is a member of the Stonewall Diversity Champions programme, and actively monitors its recruitment, staff development, promotion, and REF inclusion practices [see REF5a, Section 3].

At the School level, to ensure that all academics are treated fairly and equitably, the School has an Equality and Diversity Main Committee (chaired by the EDI Director and Head of School) and forms sub-committees to address specific policies. The EDI Director is the first point of contact for all EDI matters. The overarching objective of the Committee is to review and monitor the School's policies to guarantee their appropriateness, and compliance, with the University's policies regarding EDI [see REF5a, Section 3]. In partnership with the Research Committee, the EDI Committee also supports staff with special circumstances such as early-career researchers, maternity and paternity leaves, adoption, to name a few. For instance, additional funding is made available to academics, who have caring responsibilities, to attend conferences and workshops at places outside London. The School is also pursuing department-level Athena SWAN award, aiming to submit in 2021, showing a commitment to gender equality.

The School aims to embed EDI matters into the organization. For example, all members of School senior committees attend EDI training, including unconscious bias training. In addition to the statutory maternity and paternity leaves, the School facilitates the return of staff to work by, whenever possible, not allocating teaching duties to staff during the first semester of their return and accommodating teaching hours to facilitate dropping off and collecting children from nurseries and schools. School meetings are held in core hours and all seminars are held at lunch time to facilitate the attendance of parents.

EDI is also central to the School's hiring strategy. To meet the objective of hiring the best academics, the School aims to improve its selection process by removing bias in hiring decisions using a transparent, accountable process. The process adopts a behavioural design approach that focuses on nudging decision-making to improve the culture rather than a quota-based approach.

The Research Committee has attended REF specific training workshops, organized by the University, to foster its understanding of the legal obligations (e.g. Equality Act 2010) and guidance associated with the REF 2021 and of the importance of ensuring fair and equitable processes. The Committee adopted the following practices to select the scientific outputs and impact case studies to be submitted to the REF 2021. All papers were reviewed internally by at least one member of the Research Committee, benchmarked against prominent journal rankings in the profession, and reviewed yet again (blind) externally. It is important to stress that the Research Committee, as explained above, is composed of well-established academics representing all major fields of economics and finance, with vast experience in refereeing and editing as either editors or associate editors of journals such as *Economic Journal*, *Econometrica*, *Games* and *Economic Behavior*, *Journal of European Economic Association*, *Review of Economic Studies*, among others. In cases where the School did not have the relevant expertise, additional external opinions were sought. A similar approach was adopted for impact case studies.

Research Students. Doctoral students are central to our research culture and are offered an inclusive environment with excellent infrastructure and many opportunities for formal and informal interaction with the faculty. Teaching, training and supervising the next generation of academic researchers is a key part of the School's research strategy and the MRes and PhD programmes are the main building blocks of that objective. The School takes great care in selecting its PGR students; representatives of all research groups are involved in the admissions process, which is coordinated by the Graduate Studies Committee. The School's doctoral programme is currently part of the ESRC-funded London Interdisciplinary Social Sciences Doctoral Training Partnership (LISS-DTP) in collaboration with King's and Imperial College London, which offers social sciences training beyond the research areas covered by the School. The School is also part of the London

Leverhulme Trust Doctoral Scholarships (QMUL-LTDS) programme, which aims to foster interdisciplinarity by encouraging students to identify supervisors from two different Schools within Queen Mary.

In the REF 2014, the School stated its desire to completely restructure its PhD programme and to further improve the quality of its doctoral students and their placement outcomes. From the academic year 2014-15, the School had completed the restructuring of its doctoral programme and adopted an MRes/PhD model that closely resembles the structure of graduate programmes at top US Schools (see below). At end of the REF period, the School had 49 PhD students and a cohort of 9 MRes students (Table 1). Both the number of MRes and PhD students has steadily increased over the REF 2021 cycle. Note that the academic year 2014-215 is peculiar as most students were admitted to the newly created MRes programme, instead of the PhD programme.

Table 1: Total number of students per academic year.

	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020
PhD	17	27	33	37	42	49
MRes	16	11	12	10	10	9
Total	33	38	45	47	52	58

The timely submission rate is consistently high (see Table 2), and the School expects the restructuring to further improve it (the completion rate is defined as the percentage of students who submit their dissertation within four years of their first enrolment within the PhD programme).

Table 2: Completion rate

Cohort	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
Completion %	50%	100%	86%	100%	80%	n/a	n/a

As evidence of the quality of our students, they have presented their work at conferences both in the UK and internationally, including the AEA/ASSA meetings, Econometric Society meetings, Royal Economic Society Annual Conference, European Financial Management Association, and RES Symposium of Junior Researchers, and LSE-Oxford Graduate Student Conference. One of the School's PhD students was recently awarded best paper amongst 90 presented at the 2018 25th Annual Meeting of the German Finance Association (DGF) at Trier, Germany.

The Restructured Programme. In 2014-15, the School completely restructured its doctoral programme and adopted an MRes/PhD model that closely resembles the structure of graduate programmes at top US Schools. The new MRes/PhD pathway recruits 10-12 students each year and has significantly improved the quality of our student intake as well as their training. The programme has a rigorous coursework component, designed especially for research students, and offers structured research training and supervision. The taught component offers core courses in econometrics, finance, macroeconomics and microeconomics and field courses aimed at the development of independent research interests. Each student is assigned a first and a second supervisor and becomes a member of one of the research groups. Internal seminars in each

research area, usually organised every two weeks, provide students with the opportunity to present their work – at all stages of development – to peers and faculty, and to receive extensive feedback. Further supervision and advice is provided by all junior and senior members of the student's research group through individual consultation.

The School provides full MRes/PhD funding, including maintenance allowances and teaching fellowships, and typically two students in each cohort are externally funded via the ESRC or QMUL scholarships. During the REF assessment period, 3 SEF students have been funded by the ESRC; 2 by the China Scholarship Council (CSC) and 7 by the QMUL Principal's Studentships. The School offers £17k plus full tuition fee waiver for the MRes year, followed by £21k plus full fee waiver for the first three years of the PhD (with some TA duties during the PhD years). The School also tops up externally funded (e.g. ESRC LISS-DTP and CSC) students to match the School studentships. All research students receive an annual research allowance of £1,000, with additional funds available through QMUL's Postgraduate Research Fund [REF5b, Section 3]. Students are provided with dedicated office space, a desktop computer and access to the School's shared computing resources. There is also funding available to support students on the job market, covering costs of their travel and subsistence to attend the European or US meetings. This level of funding clearly demonstrates the commitment of the School and of the faculty to the training of postgraduate students and their future success.

The School also funds an annual PhD workshop, organised by the PhD students, with the aim of encouraging interaction and collaboration between the PhD students at QMUL and other institutions. PhD students are also encouraged to meet with external speakers and to present their work internally. For instance, the School pays for students to have lunch with the seminar speakers prior to their talks. Again, the objective is to foster the interaction between students and more established academics.

Additional research skills training is available to PhD students through the ESRC LISS-DTP. The unit for Researcher Development at QMUL also offers a suite of modules aimed at developing researcher skills such as presenting research, writing papers and project management, as well as writing retreats for PhD students to focus on their thesis [see REF5a, Section 3].

Finally, the doctoral programme is overseen by the Director of Graduate Studies, who chairs the Graduate Studies Committee that is in charge of admissions, progression and placement. In particular, PhD students present a piece of research to the faculty at the end of their first year, as part of the annual PhD Conference, which determines progression. The faculty is typically present in full strength at the conference and students benefit from discussion and feedback from across the School. At the end of their second and third year, a written piece of research is evaluated by the Graduate Studies Committee, which may also seek additional opinions on a student's contributions.

SEF invests heavily in the future success of its students, beyond their studies. We have a dedicated Placement Officer, who, with the support of the wider faculty, organizes mock interviews, job market talks and application guidance for students entering the job market. QMUL Careers Consultants provide additional support, particularly for students seeking jobs outside of academia. Recent graduate placements include permanent lectureships at Southampton (Bhattacharya, 2020), Surrey (Volpicella, 2020), Lancaster (Miescu, 2019), East Anglia (Calef, 2017), Aarhus (Scherrer, 2014; Dias, 2014), St Andrews (Petrova, 2015; Neri, 2020), and Queen's Belfast (Papailias, 2014); as well as postdoctoral or research positions at Oxford (King, 2017), Cambridge (Daskalova, 2014), the Bank of England (Redl, 2016), the Bank of Japan (Hiraki,

2020), the Central Bank of Malta (Ruisi, 2020), the Banque of France (Mouabbi, 2014) and the OECD (De Pace, 2020).

Publications in world-leading economics journals further highlight the quality of the supervision and training SEF's students receive. Examples of publications by recent PhD students include: *Review of Economic and Statistics* (Colussi), *Journal of Business and Economic Statistics* (Volpicella), *Journal of Econometrics* (Petrova), *European Economic Review* (King), among others.

The School will launch an improved PhD programme in 2021. The restructured programme offers two full years of teaching, with core courses taking place in the first year of the PhD and advanced courses in the second year. Students will thus have more in-depth training compared to the current structure (two years of courses vs. currently one year of courses), which is a worldwide practice.

Post-doctoral Researchers. The School also hosts a number of post-doctoral scholars, externally funded by the EC Marie Skłodowska-Curie Fellowship Programme, the Nuffield Foundation and the European Research Council.

The School aims to expand its number of post-doctoral researchers and actively competes for funding opportunities. In 2017, M. Piffer (placed as a Lecturer at King's Business School), joined SEF as a Marie Skłodowska-Curie Fellow. In 2018, the School was successfully awarded two further MSCA Fellowships (Warrinier and S. Fasani, submitted to REF 2021). The School also encourages grant applicants to include post-doctoral scholars in their projects. For instance, Professor Atakan funds post-doctoral scholars through his ERC consolidator grant and aims at attracting at least one post-doctoral researcher per year.

Research Assistantship. The School also offers the innovative and unique (among UK universities) Undergraduate Research Assistantship (UG RA) scheme, which offers students the opportunity to undertake research supervised by a member of the faculty. The scheme was created in 2011 with the aim of developing students' capacity to conduct research and enquiry, while providing staff with support in carrying out their research.

3. Income, infrastructure and facilities

The School has substantially increased its research grant awards in the current REF cycle, totalling approximately £2.87 million (both HESA-recorded and other peer-reviewed funding sources), compared to a corresponding figure of £193.3k in the previous REF cycle. Total HESA reported research income (expenditure) has grown from £342k in REF2014 to £1.7 million in REF2021, with 46% derived from the research councils [see REF4b]

The composition of the School's research funding awards reflects the depth, strength and quality of research highlighted in Section 1. Research funding has been awarded from diverse sources and awarded to academics across fields and rank. The primary sources of HESA-recorded income include the following awards: the ESRC (Mariotti, 2014 - £66k; Petrongolo, 2016 - £40k; Mukerji, 2018 - £265k, Zachariadis, 2019 - £50k; Petrongolo and Manacorda, 2020- £240k), the British Academy (Mukerji, 2016 - £10k; Llorente-Saguer, 2017 - £10k, Cornaglia, 2018 - £10k and Raute 2020- £10k), Leverhulme (Gancia, 2019- £50k; the Nuffield Foundation (Fella, 2015 - £70k; Fasani, 2016 - £138k), the ONS (Senga, 2016 - £66k), NORFACE (Fella, 2018 - £96k), the ERC/Horizon 2020 (Akatan, 2017 - £694k, Raute, 2018 £74k, S. Fasani, 2019- £180k; Warrinier, 2019- £170k), the World Bank (Battistin, 2015 - £10k; 2016 - £13.5k), Research Council of

Norway (Tesei, 2018 - £43k), Newton Advanced Fellowship (Guerre, 2015 - £25k) and NETSPAR (Fella, 2017 - £13k). Other sources of individual funding not recorded in SEF's HESA income return for the REF period include: Leverhulme (Mariotti, 2019 - £352k), British Academy (Lee, 2020 - £10k; Sturgess, 2019 - £10k), ANR-CIGNE (Renou, 2015 - Euros 135k), IGC (Axbard, 2017 - £29k), NIHR (Cornaglia, 2017 - £21k), Nazarbayev University (Mateos-Planas, 2018 - £26k). Various Queen Mary funds provide smaller-scale funding. Over the REF period the School has been awarded approximately £27k from these funds.

The School's faculty have also collaborated on successful international grant bids. Vimal Balasubramaniam is a co-I on a Gates Foundation grant (£450k, held by the Indian National Institute of Public Finance and Policy) examining financial inclusion in India. Simon Franklin is a co-I on a J-PAL grant (\$64k, held by Warwick) in partnership with the World Bank that studies economic inclusion in Ethiopia.

The School aspires to continue to build a research culture that integrates research grants as enablers of pathbreaking research. To achieve this, SEF has established a combination of policies and support to facilitate grant capture, namely:

- The School Research Manager (RM) is embedded in the research culture of the School and works closely with faculty. The RM is responsible for identifying and communicating (via a newsletter and 1:1 conversations) research opportunities and for supporting grant applications through advice on costings, bid development and writing, funder guidelines and peer review. A primary benefit of having an embedded research manager who understands the School's research and the grant landscape is to reduce the entry barriers to research grant applications and success.
- The RM provides a research grant induction to newly hired faculty upon joining to start a conversation about research interests and grant plans early and to make new staff aware of internal processes and the support available.
- To improve their competitiveness, grant applications are peer-reviewed by another School member with either relevant research expertise or experience of similar grant capture.
- The RM liaises with the University Joint Research Management Office (JRMO), which provides support for negotiating contracts and agreements with funders and partners, while QM Innovation provides IP support
- Research grant applications are included as a KPI in faculty promotions and annual evaluations. Mentoring of ECRs includes support for targeting appropriate research grants.
- In order to further encourage funding applications and support award holders, the School is in the process of appointing a dedicated grant officer who will liaise with funding agencies and QMUL's JMRO.

The successful targeting of research income has positively impacted the research culture by enabling investment in a range of research activities that enrich the intellectual environment of the School. These include:

- Research funds: increased research income directly increases the funds available for field work, RAs, and data, as well as dissemination of research through conference organization and participation.
- Competitive teaching loads for successful applicants, allowing faculty to invest in high-quality research.

- Post-doctoral appointments: funded Post-doctoral fellows make a valuable contribution to the vibrant research culture of the School.
- Investment in the visitor programme [see Section 4]. We fund a number of visiting positions through research funds aimed at teaching buyouts. This produces a flow of new ideas and helps to establish research links between visitors and members of the School.

The School has invested significantly in infrastructure and facilities over the current REF cycle, which has substantially improved the research environment. In early 2017, the School moved to the Graduate Centre, a new, purpose-built seven-story building of which School faculty and staff space occupy three full floors (the remainder is teaching and student space). The move to the new premises has enormously improved the School's long-term space requirements and standards, providing spare office space for academic visitors and conference rooms of varying capacities. The current arrangement of offices, desks, conference rooms and social spaces allows for much improved opportunities of interaction for both faculty and students.

All faculty and research students have access to the resources of both the School and the QMUL library, including electronic access to journal publications from JSTOR, working papers from the main economics research networks and central banks, and most significant online databases (including WRDS, Thomson Reuters, Refinitiv, and Bloomberg). The School has excellent computing resources, including two high-performance servers available to staff and doctoral students. The computing infrastructure is managed by two in-house IT specialists, plus QMUL central IT services. All academic staff have office desktops or workstation computers, with all the typical research software such as Matlab, Mathematica, Stata, EViews, Gauss, Intel Fortran. In addition, the University also runs a 260+ nodes HPC Cluster for high demand computing tasks and academics have access to a number of Tier 2 Clusters, which are among the TOP500 list of the world's most powerful computer systems.

4. Collaboration and contribution to the research base, economy and society

The School supports, and highly values, collaboration as a pathway to achieve the School's vision of applying research across economics, econometrics and finance to the betterment of society and the economy.

Research Collaborations, Networks and Partnerships. The School encourages and supports research collaboration and participation in networks and partnerships in a variety of ways, which include:

First, the School hosts an array of academic events and external visitors. Weekly seminars during term time take place for each of the five research areas (applied micro, econometrics, finance, macro and micro theory), which attract leading researchers from around the world (the list of past and future seminars is reported on the School website).

External short-term and long-term visitors are hosted by the School. Visitors include Josh Angrist (MIT), Rajiv Sethi (Columbia University), Helios Herrera (Warwick), Aubhik Khan, Julia Thomas (Ohio State U) and Stanley Zin (NYU).

Conferences are regularly organized by faculty members in most fields of economic research. Conferences hosted at QMUL over the assessment period were: the Spring Workshop in Economic Theory (annually); the first annual conference of the International Association for

Applied Econometrics (2014); the Recent Advances in Finance Conference (2015); the Econometrics Workshops (2015, 2016); the Analytical Political Economy Workshop (2016); the Workshop on Network Theory (2016); the Bounded Rationality in Choice (BRIC) Conference (2017); the E1 Macroeconomics Conference (2017-2019); the CEPR/IZA Annual Symposium in Labour Economics (2017), the Review of Economic Studies tour (2018), and the Cultural Finance Conference (2020). The latter event, the first of its kind in the UK, was an interdisciplinary initiative, bringing together literary critics from the Department of Comparative Literature and economists from SEF to examine how cultural norms interact with financial decision making. The event demonstrated the School's interest in exploring cross-disciplinary exchange and emerging areas of study.

The School supported and funded the launch of the annual QMUL Economics and Finance Workshop for PhD & Post-doctoral students (2018, 2019, postponed in 2020). The two-day workshop, organized by SEF PhD students, is targeted at pre-job market students with the objective of fostering cross-institutional collaboration, developing networks, and stimulating discussion and constructive feedback from faculty members, who acted as discussants. The workshop brought together researchers from top international schools across a variety of areas within economics.

Other conferences have been co-organised by School members and hosted at external institutions, including the joint CEPR/IZA Annual Symposium in Labour Economics (LSE, 2016); the CEPR/ECB Labour Market Workshop (ECB, 2016); the London Experimental Workshop (Middlesex University, 2016); the Workshop in Advances in Political Economy (Kings College, 2016); the CEPR/IGC Conference on Labour Markets in Developing Countries (2017).

Second, the School runs a rich programme of public lectures, including the long-standing Peston lecture, named after the School's founder Maurice Peston and one-off lectures by prominent speakers from policy institutions and the media. The School hosted the then Governor of the Bank of England, Mark Carney, in January 2016, and his speech was covered by the BBC and main UK newspapers for having ruled out immediate interest rate increases. Other notable speakers were political journalist Robert Peston, economic journalist Martin Wolf, Monetary Policy Committee member, Silvana Tenreyro, and Rachel Glennerster, Chief Economist at the Department for International Development.

Third, the School also supports and encourages its faculty members to visit outside institutions. Each faculty member is endowed with a generous research allowance, which makes it possible to visit other institutions, to attend conferences or to participate in summer schools. To complement the research allowance, QMUL offers faculty members the opportunity to be on paid leave every six semesters. Instances of recent visiting appointments include: NYU (Guerre, Lazarova); UPenn (Carriero); Federal Reserve Bank of New York (Carriero); UCL (Fella, Petrongolo), Bocconi (Carriero, Manacorda), EIEF Rome (Manacorda), Paris School of Economics (Petrongolo and Renou), Northwestern University (Tesei), LSE (Nikolowa) and MIT (Renou).

Fourth, the School actively builds partnerships that facilitate the two-way hosting of researchers. The School has signed an agreement with the Central Bank of Malta, which facilitates internships of doctoral students and/or postdoctoral researchers from the School of Economics and Finance at the Central Bank of Malta under their Academic Visitors Programme.

Finally, the School has developed partnerships to collaborate on research grant applications and to bid for policy research on specific questions relevant to government agencies and departments

(in UK or elsewhere). One example is a successful ESRC proposal by Dr Senga as part of a consortium led by NIESR, being awarded a substantial grant (total award value £972k) to investigate the understanding of management practices to promote higher productivity in UK businesses.

School Recognition. The external recognition of the School and its faculty illustrates its ability to contribute to the research base, economy and society. The School has been recognized in many dimensions:

School faculty are members of prominent research networks, centres and committees, including: CEPR (Battistin, Bonfiglioli, Fasani, Gancia, Manacorda, Petrongolo, Raute, Renou, Tesei), IZA (Battistin, Cornaglia, Fasani, Manacorda, Petrongolo), LSE Financial Markets Group (Nikolowa), LSE Centre for Economic Performance (Manacorda, Petrongolo, Tesei), ESRC Centre for Macroeconomics (Faccini, Fella, Mateos-Planas, Sustek), Institute for Fiscal Studies (Fella), ESRC Centre for Population Change (Mateos-Planas), CESifo Group (Manacorda, Tesei), Max Planck Institute for Research on Collective Goods (Llorente-Saguer). Prof. Petrongolo is Director of the Labour Economics Programme at CEPR and served as an elective council member of the European Economic Association (EEA), and a member of the EEA Women in Economics Committee. Dr Raute is also a council member of the European Economic Association. Prof. Manacorda served as a member of the OECD Scientific Committee for the Review of Labour Migration in the EU.

Faculty members are very active in dissemination and regularly present their research at major international conferences (e.g. NBER Summer Institutes, CEPR conferences and symposia, and AEA/ASSA/AFA and Econometric Society meetings) and in invited seminars at prominent economics departments in North America (Chicago, Princeton, UC Berkeley, Stanford, Columbia, NYU, Boston, Maryland, Toronto, UPenn, Yale) and Europe (LSE, UCL, Warwick, Cambridge, Oxford, Essex, Paris School of Economics, Toulouse, Sciences Po, Pompeu Fabra, Bocconi, European University Institute, Mannheim). Dissemination activities also include keynote/plenary lectures such as: public lecture on Refugees and Economic Migrants, LSE (Fasani, 2016); plenary lecture at the Festival of Game Theory, Stony Brook (Renou, 2016); Max Weber Lecture, EUI (Petrongolo, 2017), keynote address at the Spanish Economic Association Conference (Petrongolo, 2017), keynote address at COSME Gender Economics Workshop (Raute, 2019)

Recent prizes and awards include: Arnbergska prize 2017 (50,000 SEK) by the Royal Swedish Academy of Sciences to Dr Axbard (ECR) for his Doctoral thesis on "Crime, Corruption and Development" (2017). Dr Raute was awarded the UniCredit & UWIN Best Paper award on Gender Economics (2015).

Over the assessment period, School members have served as editors, co-editors and board members of several journals, including *Econometrica* (Mukerji), *Review of Economic Studies* (Atakan, Gancia), *Economic Journal* (Petrongolo and Manacorda), *Review of Economic Dynamics* (Gancia), *Econometrics Journal* (Guerre), *Econometric Theory* (Giraitis and Guerre), *Games and Economic Behavior* (Renou), *Labour Economics* (Petrongolo), *Journal of Banking and Finance* (Skiadopoulos), *CEPR Covid Economics* (Petrongolo), *Journal of the European Economic Association* (Bonfiglioli), *Macroeconomic Dynamics* (Vriend).

The School's commitment to supporting research collaboration and networks is exemplified by faculty collaborations with researchers at numerous institutions, including: UC Berkeley, MIT, Harvard, Chicago, Stanford, Yale, NYU, Northwestern, Columbia, Boston College, Toronto,

Minnesota, Maryland, Carnegie Mellon, LSE, UCL, LBS, Cambridge, Oxford, Imperial, HEC, Paris School of Economics, Stockholm School of Economics, Pompeu Fabra, Bocconi. The list of co-authors contains two Nobel laureates (Finn Kydland and Christopher Pissarides).

Interaction with Key Users and Practitioners. The School encourages and supports interaction with end-users to facilitate contribution to the research base, economy and society. The School supports these interactions by allowing all faculty members to devote up to one day a week to actively engage with key users and practitioners.

Several faculty members advise public authorities, such as local and national government and international organizations, which often results in the generation of research and impact. For instance, Prof. Skiadopoulos is a member of the team of experts which advises the Hellenic Capital Market Commission's (HCMC) Innovation Hub on Financial Technology, founded in line with the Directives of the European Commission and the European Securities and Markets Authority. Prof. Manacorda has advised and consulted for the Inter-American Development Bank, the World Bank, UNICEF and ILO on themes of labor markets, social assistance, and early child development. Prof. Manacorda's published paper "Changes in returns to education in Latin America: The role of demand and supply of skills" (*ILR*, 2010) directly originated from his interaction with the Inter-American Development Bank. Other instances include: the work of Prof. Battistin with the Italian Education Ministry, which also resulted in the publication "In a small moment: Class size and moral hazard in the Mezzogiorno" (*AEJ: Micro*, 2017); Prof. Carriero's work with the Bank of England, which motivated his paper "U.K term structure decompositions at the zero lower bound" (*Journal of Applied Econometrics*, 2018); and Dr Franklin's work with the World Bank on the design and evaluation of the Ethiopian UPSNP programme, which led to multiple papers, e.g., "Anonymity or Distance? Job Search and Labour Market Exclusion in a Growing African City" (*Review of Economic Studies*, 2020).

In addition, faculty members frequently offer their expertise as consultants. Examples of organizations that faculty members have consulted for include: HM Treasury (Carriero), European Commission (Fasani), Securities Exchange Board of India and Reserve Bank of India (Balasubramaniam), Health Department of Lower Saxony (Raute), World Bank (Gerard, Manacorda), Ministry of Finance of the State of São Paulo (Gerard), Scottish Fiscal Commission (Breedon), Local Government Association (Breedon), to name just to name a few.

Finally, School members disseminate their research to the general public through a variety of publications, websites, and other outlets, including: the *The Financial Times* (Breedon, Petrongolo), *Wall Street Journal* (Breedon), *Le Monde* (Manacorda), *The Economist* (Manacorda), and the *Times Educational Supplement* (Battistin), *VoxEU* (Fasani, Petrongolo), *British Politics and Policy at the LSE* blog (Petrongolo), *CentrePiece* (Cornaglia, Manacorda, Petrongolo, Tesei), *Economic Policy* (Fasani, Manacorda), *The Conversation* (Petrongolo), to name just a few.

Responses to National Priorities. The School's contribution to the research base, economy and society over the assessment period is visible in the ways it has shaped the understanding of major challenges such as the immigration crisis, Brexit, the modern economy and Covid-19.

In response to the European Refugee Crisis, Dr Fasani, an expert on migration, was awarded a Nuffield Foundation grant (£156k) for a two-year project on "Asylum policies in Europe and the refugee crisis." Within this project, Fasani led a team of researchers working on three broad areas: 1) border enforcement and asylum seekers flows; 2) refugee labour market integration; 3) political consequences of refugee migration. Fasani worked in close collaboration with leading members

of organizations such as the UNHCR-UK, the Overseas Development Institute, the UK Refugee Council and the Migration Advisory Committee, who were part of the project advisory board and took part in the final conference that was held at QMUL on 18-19 March 2019. The work led by Fasani influenced immigration policy through a combination of collaboration with policy makers and dissemination of research.

On Brexit, the School hosted a conference on Brexit and the Eurozone, co-organised with the Central Bank of Malta in 2018, bringing together a select group of academics, policy makers and banking professionals. The 2017 Peston Lecture by Robert Peston was on 'Brexit Britain'; Prof. Petrongolo spoke at the Economics Festival in 2019 on immigration and Brexit and contributed a chapter to a CEPR eBook on the economic consequences of Brexit.

On the modern economy, Dr Senga has been awarded research funding (2017 - £50k) in collaboration with the National Institute of Economic and Social Research (NIESR) and the Economic Statistics Centre of Excellence (ESCoE), to provide the Office of National Statistics (ONS) with research that addresses the challenges of measuring the modern economy. Senga's work aims at delivering improved economic measurements. Results from the first wave of the survey have been used in the BEIS-HMT productivity review and have informed the 2018 Autumn Budget.

More recently, faculty members have embraced the challenge presented by Covid-19. Lee (who was awarded a BA Special Covid-19 Grant in 2020) and co-authors argue that measures put in place to reduce the spread of the virus, such as lockdowns and self-isolation, prevented even larger employment losses than observed. This research was reported in the *Wall-Street Journal*, the *National Post* (Canada) and in the *Conversation*. Dr Gerard wrote about the interactions between social protection (health insurance, unemployment benefits) and the severity of the crisis in developing countries, proposing specific reforms to mitigate the negative effects. Dr Fasani, with Jacoppo Mazza (European Commission), estimated the fraction of foreign-born workers among essential workers and their degree of vulnerability in the labour market. They argue that nearly 20% of essential workers are foreign born, thus illustrating the benefits of immigration in the response to Covid-19.